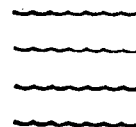


# Aquatek Lab Inc.

Division of  
GRAHAM-MASSEY ANALYTICAL LABS, INC.



SDMS DocID 584761

## WATER ANALYSIS REPORT

TO: P and M Realty, Inc.

DATE: March 17, 1989

15 Hawthorne Drive

TEST#: E0317905

Monroe, CT 06468

WELL LOCATION: 585 Fan Hill Road, Monroe, CT

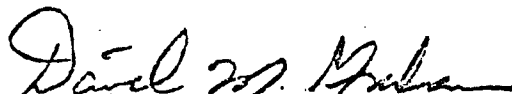
	<u>RESULT</u>	<u>MCL</u>	<u>UNITS</u>
<b>BACTERIOLOGICAL EXAMINATION</b>			
Total Coliforms	<u>&lt;2.2</u>	2.2	MPN/dL
<b>PHYSICAL EXAMINATION</b>			
Color	<u>1.0</u>	15	----
Odor	<u>0</u>	2	----
Turbidity	<u>2.7</u>	5	NTU
<b>CHEMICAL EXAMINATION</b>			
Nitrite Nitrogen	<u>&lt;.01</u>	1	mg/L
Ammonia Nitrogen	<u>.01</u>	0.05	mg/L
Nitrate Nitrogen	<u>.23</u>	10	mg/L
pH	<u>7.4</u>	6.4-8.5	----
Chloride	<u>9.5</u>	250	mg/L
Sodium	<u>3.7</u>	20	mg/L
Iron	<u>.09</u>	0.3	mg/L
Manganese	<u>.008</u>	0.05	mg/L
Copper	<u>.39</u>	1.0	mg/L
Hardness	<u>46.0</u>	150	mg/L
Other Tests:	<u>          </u>	<u>          </u>	<u>          </u>
	<u>          </u>	<u>          </u>	<u>          </u>

MCL = Maximum Containment Limit

> = greater than

< = less than

CT License #PH-0466

  
David M. Graham, Ph.D.  
Laboratory Director

CONCLUSIONS (Based on the bacteriological examination of the sample)

- 1   X   Results indicate that this water was safe for drinking purposes (potable) at the time the sample was collected.
- 2        Results indicate that this water was unsafe for drinking purposes at the time the sample was collected. Corrective measures, followed by re-examination, are recommended.

## Interpretive Guide

- Coliform bacteria are not disease-producing organisms themselves, but are used as an indicator of disease-producing organisms. A level of coliform bacteria of 2.2 MPN/dl or greater is a good indication that the source of the water may have been contaminated by surface water or fecal material, and may contain disease-producing organisms. Chlorination is the best method for eliminating bacteria from the water, but the source of contamination should be located and treated so the problem does not recur.
- Water color may be caused by dissolved organic material from decaying vegetation and/or certain inorganic material such as iron or manganese. While color is not objectionable from a health standpoint, its presence is esthetically objectionable and suggests that the water needs appropriate treatment.
- Odor in water can be caused by foreign matter such as organic compounds, inorganic salts or dissolved gases. These materials may come from domestic, agricultural or natural sources. The MCL has been set according to esthetic values but acceptable waters should be free of any objectionable odor.
- Turbidity is the presence of suspended material such as clay, silt, plankton, finely divided organic material and other inorganic materials. Turbidities in excess of 5 units are detectable in a glass of water and are usually objectionable for esthetic reasons. The most common method of removing turbidity is with a filter system.
- When any physical property exceeds the MCL, knowledge concerning the chemical quality is important in order to determine what treatment, if any, is required to make the water acceptable for use.
- Ammonia nitrogen is a product of the microbiological decay of plant and animal protein and is commonly used in commercial fertilizers. Ammonia nitrogen in ground waters is normal therefore, unless the nitrite or nitrate nitrogen, or the bacteria level is also elevated, high ammonia nitrogen is of little concern.
- An elevated nitrate nitrogen level may be an indication that agricultural fertilizer or waste disposal is polluting the water. The MCL of 10 mg/L has been established to prevent a disease called methemoglobinemia "blue baby disease" in infants. Nitrates can be removed by reverse osmosis and ion exchange resins.
- pH is a measure of the acid or alkaline content of water. Water with a low pH (acidic) is corrosive to plumbing and may cause leaching of toxic metals such as lead or copper. Soda ash can be added to the feed water to effectively raise the pH.
- The MCL for chloride was established primarily as an esthetic standard. The concentration at which the average person can detect a salty taste in water is 250 mg/L. A very high chloride level can lead to corrosiveness of water on pipes and heating equipment and is usually associated with a high sodium level. Elevated chlorides may be caused by sewage contamination, run-off from road salting or an improperly maintained water softener.
- For healthy persons, the sodium content of water is relatively unimportant because the intake of sodium from other drinks and foods is so much greater. Persons following a low sodium diet because of hypertension, kidney, or cardiovascular disease should be concerned with an elevated level of sodium. The usual low sodium diet allows 20 mg/L in the drinking water. Elevated sodium levels are likely to be seen with the use of a water softener. Other possible causes are run-off from road salting or sewage contamination.
- Iron levels above 0.3 mg/L can discolor fixtures and laundry and may impart a metallic taste to the water. Iron is frequently present in water because of the large amounts present in soil. Corrosive water will also pick up iron from pipes. Common methods for removing iron from the water are aeration or chlorination of the water followed by filtration of the iron.
- Manganese at levels greater than .05 mg/L may produce a brownish black stain in laundry and on fixtures and impart an objectionable odor and taste. It is usually found along with iron in soil with a high mineral content. Electrostatic precipitate is the method of choice for eliminating manganese.
- Copper in small amounts is not considered detrimental to health, but will impart an undesirable taste to drinking water. For this reason, the recommended limit is set at 1 mg/L. High levels are usually due to low pH and low hardness in the water.
- Calcium and magnesium salts are the major cause of hardness in water supplies. Although not detrimental to health, hard water retards the cleaning action of soaps and detergents. When hard water is heated it will deposit a hard scale on heating coils and cooking utensils with a consequent waste of fuel. A water softening system is the most common method of lowering the hardness in water. The following is a scale on which to compare your water hardness.

0 - 75	LOW/SOFT
76 - 150	MODERATE
150 - 250	HARD
250 or greater	VERY HARD